

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 135279	FOR FURTHER ACTION		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/GB93/00531	International filing date (day/month/year) 15/03/93	(Earliest) Priority Date (day/month/year) 31/03/92	
Applicant BRITISH TECHNOLOGY GROUP LTD et al			

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☒ Certain claims were found unsearchable (see Box I).
2. ☐ Unity of invention is lacking (see Box II).
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.
☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority
4. With regard to the title, ☒ the text is approved as submitted by the applicant.
☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract, ☒ the text is approved as submitted by the applicant.
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:
 Figure No. _____ ☐ as suggested by the applicant. ☒ None of the figures.
☐ because the applicant failed to suggest a figure.
☐ because this figure better characterizes the invention.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB93/00531

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 8-11 and 13-16 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compounds.
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all)⁶

According to International Patent Classification (IPC) or to both National Classification and IPC

Int.Cl. 5 C07J43/00; A61K31/58

II. FIELDS SEARCHED

Minimum Documentation Searched⁷

Classification System

Classification Symbols

Int.Cl. 5

C07J ; A61K

Documentation Searched other than Minimum Documentation
to the Extent that such Documents are Included in the Fields Searched⁸III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹

Category ⁹	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	BULLETIN OF THE POLISH ACADEMY OF SCIENCES. CHEMISTRY vol. 33, no. 1-2, 1985, WARSAW PL pages 19 - 27 J. WICHA ET AL 'Cardiotonic Steroids. Part 8. Synthesis of 17.beta.(3'-pyridyl)-14.be ta.-Androst-4-ene-3.beta.14-diol from 17-Oxoandrostane Derivatives' see page 21, compound 13 ---	1-3,5
A	EP,A,0 413 270 (MERRELL DOW PHARMACEUTICALS INC.) 20 February 1991 see the whole document ---	1,7,12
A	EP,A,0 288 053 (MERRELL DOW PHARMACEUTICALS INC.) 26 October 1988 see the whole document ---	1,7,12
	--- -/--	

⁹ Special categories of cited documents :¹⁰

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search 24 JUNE 1993	Date of Mailing of this International Search Report 15. 07. 93
International Searching Authority EUROPEAN PATENT OFFICE	Signature of Authorized Officer WATCHORN P.W.

DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category °	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
A	BULLETIN OF THE POLISH ACADEMY OF SCIENCES. CHEMISTRY vol. 32, no. 1-2, 1984, WARSAW PL pages 75 - 83 J. WICHA ET AL 'Cardiotonic Steroids. Part 7. Synthesis of 17.beta.-Pyridyl-androstane Derivatives' see page 77, compound 11 ---	1
A	HETEROCYCLES vol. 16, no. 4, 1981, AMSTERDAM NL pages 521 - 524 J. WICHA ET AL 'Synthesis of 17.beta.-Pyridyl- and 17.beta.-Pyridonyl-androstane Derivatives' see page 523, compound 7 ---	1
A	HETEROCYCLES vol. 20, no. 2, 1983, AMSTERDAM NL pages 231 - 234 J. WICHA ET AL 'Synthesis and Molecular Biological Activity of the Pyridine Analog of Cardiotonic Steroids' see page 232, compound 6 -----	1

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

GB 9300531
SA 71781

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24/06/93

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP-A-0413270	20-02-91	US-A- 4966898	30-10-90
		AU-B- 628209	10-09-92
		AU-A- 6087790	21-02-91
		CA-A- 2023012	16-02-91
		CN-A- 1050196	27-03-91
		JP-A- 3083998	09-04-91

EP-A-0288053	26-10-88	AU-B- 606677	14-02-91
		AU-A- 1471988	27-10-88
		DE-A- 3864725	17-10-91
		JP-A- 63284195	21-11-88
		US-A- 5075464	24-12-91
		ZA-A- 8802717	17-10-88
